

Wisconsin's Strategic Energy Assessment

Energy 2010

Tonight's Agenda

Let's Get Started (5 minutes)

Welcome (5 minutes)

Powerpoint Program on Energy 2010 (10 minutes)

Panel Discussion of Local and State Energy Challenges and Opportunities
(45 Minutes)

Break (10 minutes)

Energy Computer Modeling on Wisconsin Energy Choices (45 minutes)

Closing

Wisconsin's Strategic Energy Assessment **Energy 2010**



Public Service Commission of Wisconsin

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- Independent state regulatory agency
- Reliable and affordable electricity, natural gas, water and telecommunications

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- Three Governor-appointed Commissioners make case decisions

Generating Electricity

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- PSC requires the utilities to have 18% more power than forecasted to increase reliability for Wisconsin residents
- Peak demand grows at about 2.5% each year – equal to adding one major power plant in the state every two years

Building to Meet Demand

- Utilities are planning to invest \$3.66 billion in construction
- Wisconsin entering building phase that hasn't been experience for more than 20 years in the state
- Draft Strategic Energy Assessment indicates there is expected to be enough reliable energy to meet the need through 2010

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- Geography presents challenges with Lake Superior to the north and Lake Michigan to the east

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- Wisconsin investing in constrained transmission system

Rates and Reliability

- Natural gas costs, transmission constraints, construction, environmental improvements and federal policies will continue to put upward pressure on rates
- Wisconsin has always had competitive electric rates, ranking in the lower half nationally and in the Midwest
- Wisconsin needs innovative ways to control costs

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Mix of Fuel Types

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- Each fuel type has its pluses and drawbacks
- Coal and nuclear power will continue to provide the bulk of Wisconsin's electricity
- Natural gas consumption is expected to increase substantially in the upcoming years
- About 60% of the electricity consumed comes from coal
- Approximately 17.9% comes from nuclear sources
- Currently, almost 2.9% of the electricity consumed comes from natural gas
- Wisconsin natural gas power plants could supply up to 27% of the electricity in the state, with that figure growing to 40% by the end of 2006

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HYDRO-ELECTRIC ENERGY

- Uses flowing water to turn electric generators.
- Almost fully developed in our state.

WIND POWER

- Fastest growing renewable generation source and can be used to turn electric generators.
- Not a constant power source.

SOLAR POWER

- Converts the sun's energy into electricity.
- Expensive and requires a large amount of land.

BIOMASS

- Uses materials from animal and plant sources to produce power.
- Air emissions can result from producing electricity from some sources.

Renewable Energy

- Environmentally friendly and sustainable
- Electricity utilities produce from renewable energy sources must reach 2.2% by 2011
- Energy efficiency impacts when and the size of building another power plant in Wisconsin

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The PSC will continue to work to make the right choices about the combination of power plants, renewable energy, transmission lines and conservation to ensure that rates are as low as possible, the power supply is reliable and there is minimal impact on our environment.